To: Arguto, William[Arguto.William@epa.gov]; Allgeier, Steve[Allgeier.Steve@epa.gov]
Cc: Wisniewski, Patti-Kay[Wisniewski.Patti-Kay@epa.gov]; Travers, David[Travers.David@epa.gov]
From: Hedrick, Elizabeth
Sent: Thur 1/30/2014 1:52:09 PM
Subject: RE: another question

I need to correct myself regarding how methanol and formaldehyde might partition in air/water. I quickly looked at two different sources for Henry's Law constants and did not take care to look at units (different sources sometimes use different units). Looking at just EPA sources, the HLC for methanol is 4.55X10^-6 atm.m^3/mol and formaldehyde is 3.36X10^-7 atm.m^3/mol. So methanol > formaldehyde. Will be more careful next time.

--Elizabeth

From: Hedrick, Elizabeth
Sent: Wednesday, January 29, 2014 5:53 PM
To: Arguto, William; Allgeier, Steve
Cc: Wisniewski, Patti-Kay; Travers, David
Subject: RE: another question

Bill,

I can't speak to what would happen to methanol in drinking water treatment but did find one reference of interest regarding biodegradation: http://environment.gov.ab.ca/info/library/8311.pdf. Yes, it would have a degradation pathway through formaldehyde, a contaminant of greater concern than methanol. Methanol loss would also occur through volatilization to some extent and formaldehyde even more so. Formaldehyde has been studied more as an air quality concern.

See page 5 for health advisory levels for formaldehyde in DW. *2012 Edition of the Drinking Water Standards and Health Advisories*, http://water.epa.gov/action/advisories/drinking/upload/dwstandards2012.pdf California has set a DW notification level of 0.1 ppm (need to verify that).

EPA Method 556.1 (1999, derivatization with GC-FID for carbonyl cpds) has an MDL of ~0.1 ppb for formaldehyde. The method is also good for some other aldehydes that may be worth

looking for in raw and finished waters concurrently with other methods efforts.

Elizabeth

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From: Arguto, William
Sent: Wednesday, January 29, 2014 2:04 PM
To: Allgeier, Steve; Hedrick, Elizabeth
Cc: Wisniewski, Patti-Kay
Subject: FW: another question
Importance: High

Steve – Elizabeth

I cc'd you on the email below as a heads up. Could you provide some additional information of the breakdown process of methanol. Vicky also mentioned possible lab contamination

Sorry for all of the questions –

I know Elizabeth has been participating in the PPH discussions and that team seems to be really drilling down into the sampling methods, detection limits etc

Any help would be appreciated

Thanks

From: Arguto, William
Sent: Wednesday, January 29, 2014 1:58 PM
To: Miller, Linda
Cc: binetti, victoria; Allgeier, Steve; Hedrick, Elizabeth; Hodgkiss, Kathy; Caporale, Cynthia
Subject: RE: another question

Linda;

I did see the article – see below for the article in case you don't have it

http://www.wvgazette.com/News/201401290053

It would be helpful – as the article states to know when and at what level he found it. EPA has a health advisory for this chemical that provides one day , 10 day and life time health advisory levels.

I will get back to you with additional information

From: Miller, Linda

Sent: Wednesday, January 29, 2014 1:40 PM
To: Hodgkiss, Kathy; Caporale, Cynthia; Arguto, William
Cc: Ferrell, Mark
Subject: another question

Hi - The Region has another follow up question from Rockefeller staff through OCIR. It may be we don't have any input into answer. Please let us know. Thanks again for your continued help. Linda

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We had another issue come up today with a scientist saying he found formaldehyde in the water. According to the MSDS, methanol (which he says breaks down into formaldehyde) is only 1% of the crude MCHM. Are you aware of these findings? Could you speak a little to that process?

Also, are you currently working on testing for PPH? How is that progress?

Linda Miller

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